

Serial No. 10/811,873

LISTING OF CLAIMS:

The following listing of claims replaces all previous versions and listings of claims in the present application.

1. (Original) An infrared sensor provided with a substrate having a thick part and a thin part, a membrane constituting the thin part of said substrate, and an infrared detector provided on a top surface of said substrate having said membrane, wherein:

a bottom surface of the thick part of said substrate and a mounting surface for mounting said infrared sensor are bonded by an adhesive for mounting, and

said adhesive consists of a material having a heat conductivity not exceeding seven times the heat conductivity of a fluid present in an inner cavity surrounded by the bottom surface of said substrate and said mounting surface.

2. (Currently amended) An infrared sensor ~~provided with a substrate, a membrane constituting a thin part formed on said substrate, and an infrared detector provided on the top surface of said substrate having said membrane~~ as set forth in claim 1, wherein

[a] said bottom surface of said substrate and said mounting surface are bonded by an adhesive having a heat conductivity of not more than 0.18 W/mK for mounting.

3. (Original) An infrared sensor as set forth in claim 1, wherein said adhesive is a silicone-based adhesive.

Serial No. 10/811,873

4. (Original) An infrared sensor as set forth in claim 2, wherein said adhesive is a silicone-based adhesive.

5. (Original) An infrared sensor as set forth in claim 1, wherein said infrared detector is provided with:

a thermocouple providing a hot contact part on said membrane and providing a cold contact part outside of said membrane on said substrate and

an infrared ray absorption film formed on said membrane so as to cover said hot contact part.

6. (Original) An infrared sensor as set forth in claim 2, wherein said infrared detector is provided with:

a thermocouple providing a hot contact part on said membrane and providing a cold contact part outside of said membrane on said substrate and

an infrared ray absorption film formed on said membrane so as to cover said hot contact part.

7. (New) An infrared sensor as set forth in claim 1, wherein said fluid is a low conductivity gas.

Serial No. 10/811,873

8. (New) An infrared sensor as set forth in claim 2, wherein said fluid is a low conductivity gas.

9. (New) An infrared sensor as set forth in claim 1, wherein a heat conductivity of said fluid is not more than 0.025W/mK.

10. (New) An infrared sensor as set forth in claim 2, wherein a heat conductivity of said fluid is not more than 0.025W/mK.